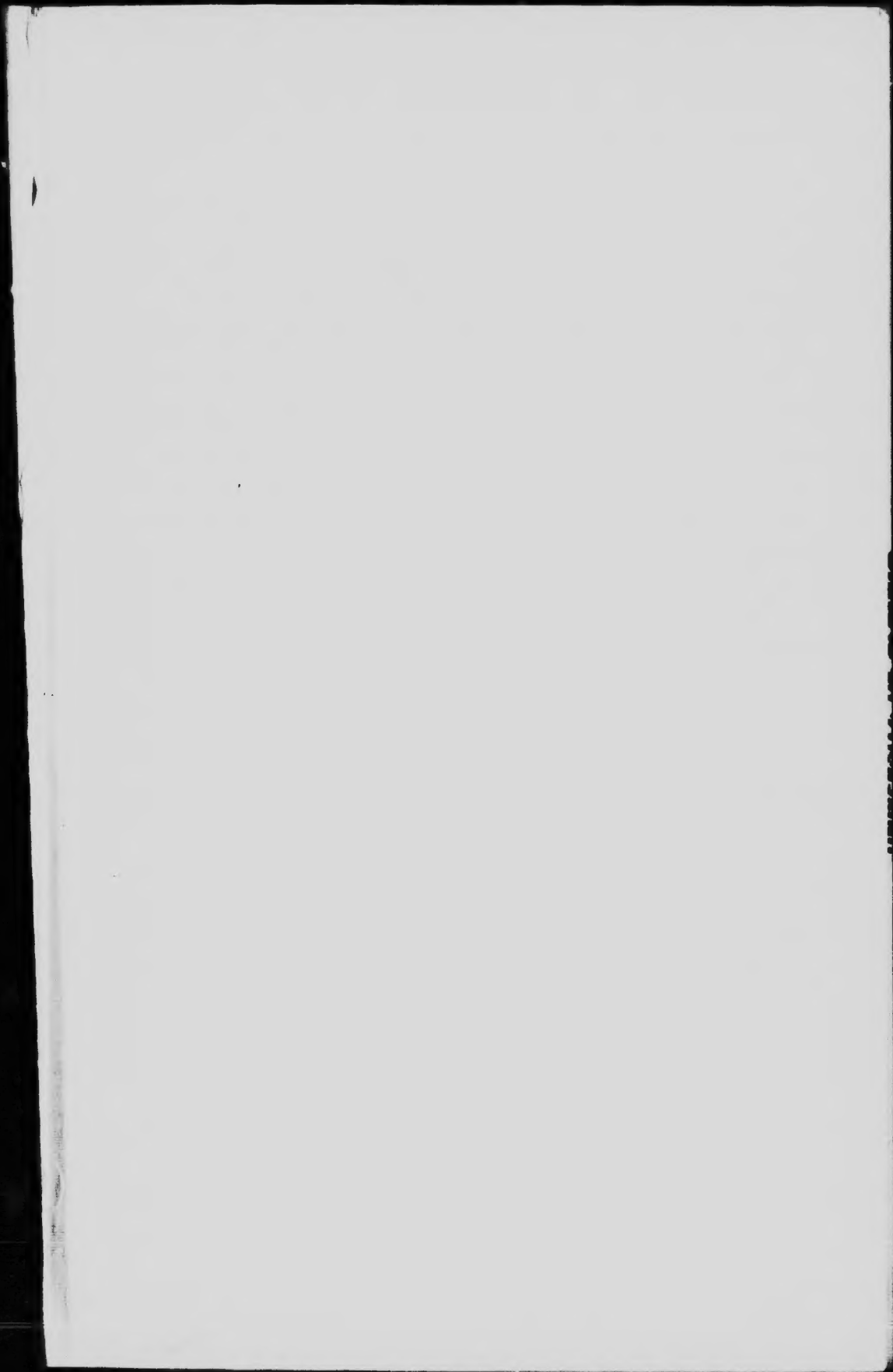
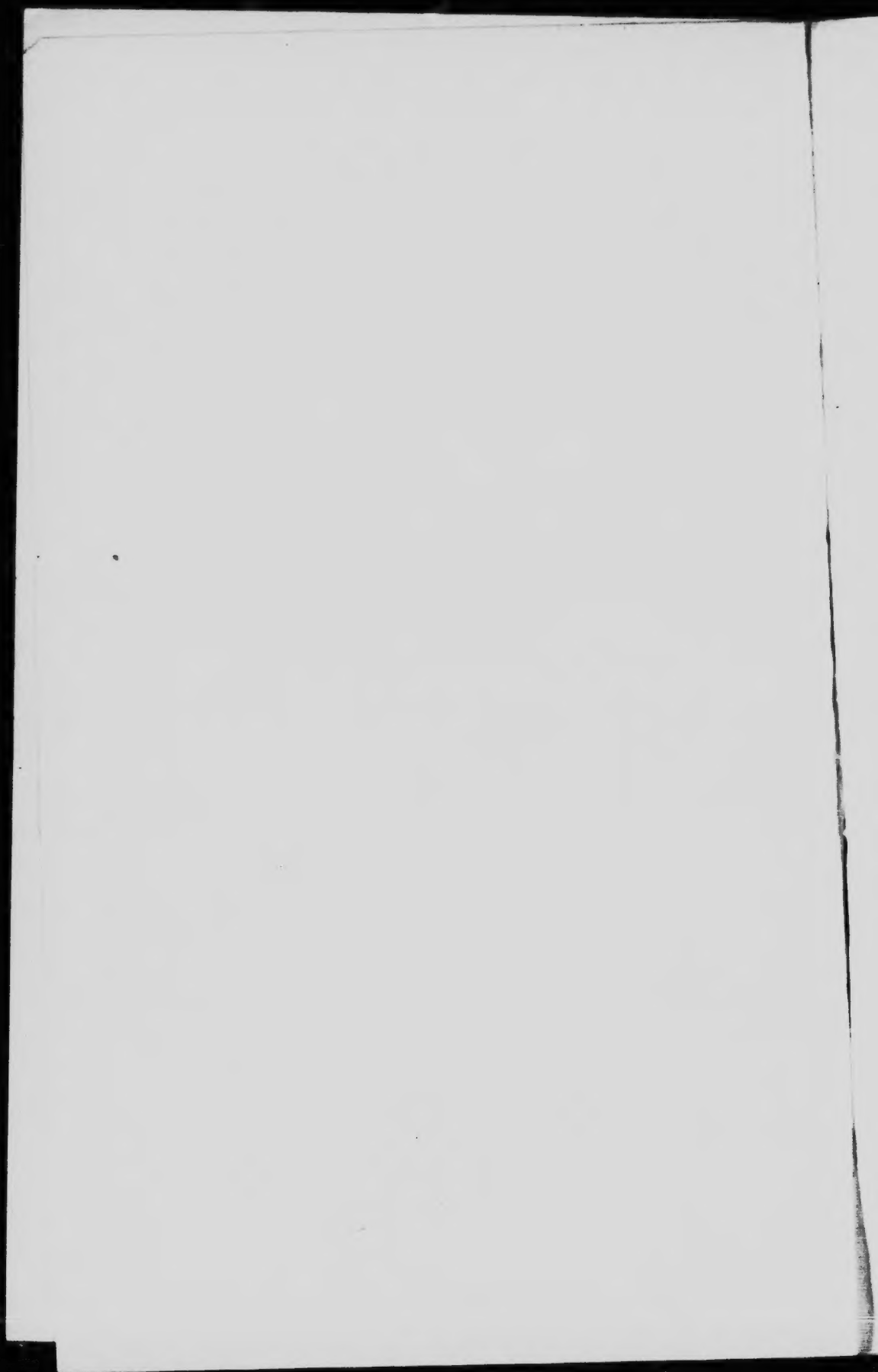






THE
CANADIAN LAKE
PUBLIC TERMINAL
ELEVATORS

1918

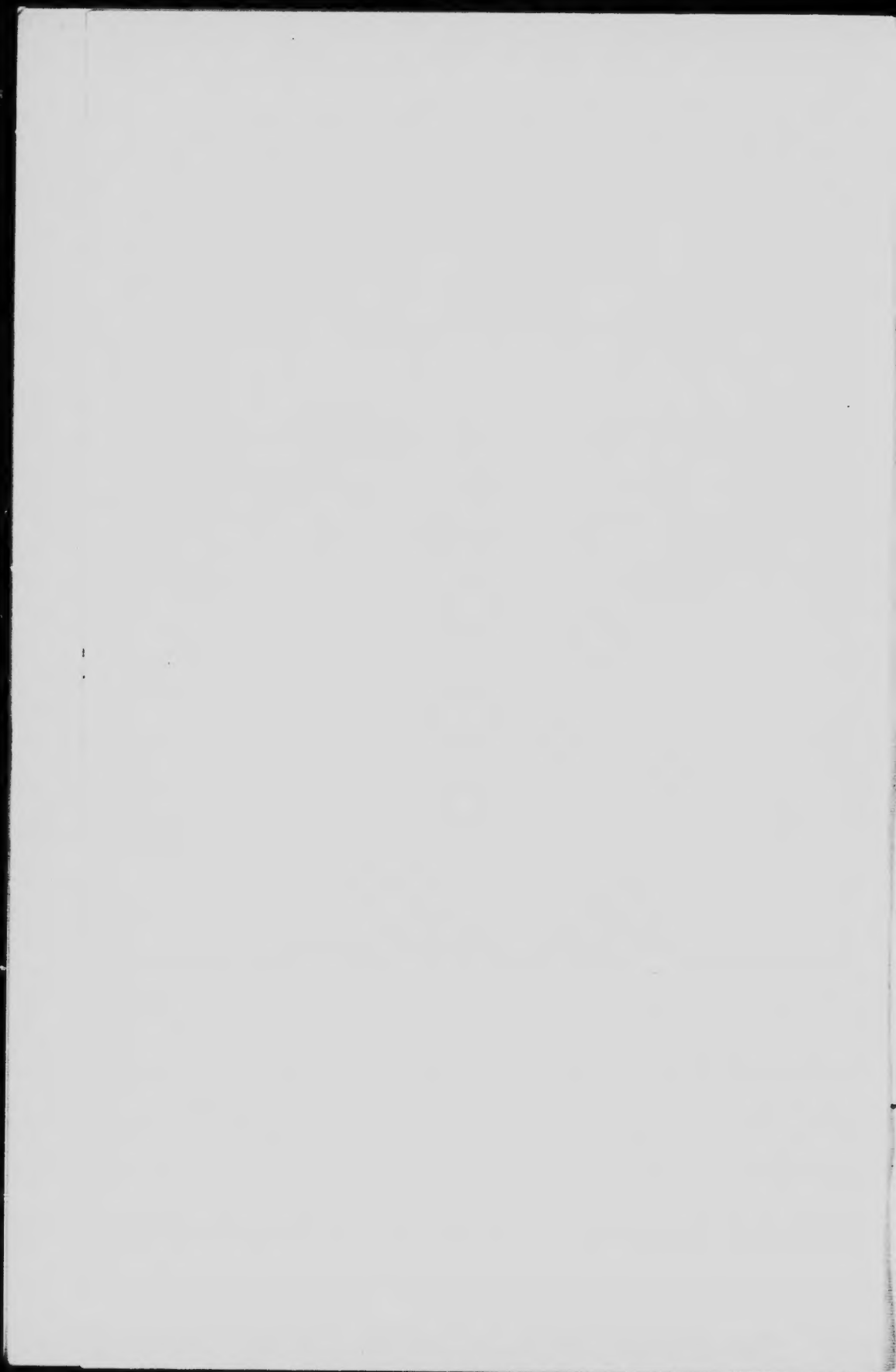
PREPARED AND PUBLISHED BY THE PUBLIC TERMINAL
ELEVATOR COMPANIES AT FORT WILLIAM
AND PORT ARTHUR.

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1.—OWNERSHIP OF THE LAKE PUBLIC TERMINALS

The Canadian Government. The Canadian Government operates an elevator with a capacity of 3,250,000 bushels. The elevator is connected with the Canadian Northern and the Canadian Pacific Railway systems, so that any farmer or shipper of grain in the territories served by these two railway systems can ship his grain direct to the Government elevator.

The Canadian Pacific Railway Company. The Canadian Pacific Railway Company owns and operates Elevator "D," with a capacity of 7,500,000 bushels, and any farmer or shipper of grain in the territory served by this railway can ship his grain direct to this elevator.

THE FARMERS' COMPANIES

(a) *The United Grain Growers Limited.* This company operates an elevator, with a capacity of 2,500,000 bushels, leased from the Canadian Pacific Railway Company, and any farmer or shipper of grain in the territory served by the Canadian Pacific Railway can ship his grain to this farmers' elevator.

(b) *The Saskatchewan Co-operative Elevator Company Limited.* This company built and operates an elevator with a capacity of 2,500,000 bushels. The elevator is connected with the Canadian Northern Railway and the Canadian Pacific Railway, and any farmer or shipper of grain in the territories served by these railways can ship his grain direct to this elevator.

The Commercial Grain Companies.

The Port Arthur Elevator Company.

The Grand Trunk Pacific Elevator Company.

The Eastern Terminal Elevator Company.

These three companies operate three elevators, built by the railway companies, but leased by them. The Canadian Northern Railway Company built an elevator at Port Arthur which has a capacity of 9,000,000 bushels. The Grand Trunk Pacific Railway Company built an elevator at Fort William which has a capacity of 5,750,000 bushels. These railway companies, however, instead of operating the elevators themselves, leased them to grain companies, and as a condition of the lease, the grain companies built lines of country elevators along the two railway systems.

The Canadian Pacific Railway Company leased elevators "A" and "C," with a capacity of 2,225,000 bushels, to the Eastern Terminal Elevator Company.

	<i>Capacity, bushels</i>
Empire Elevator Company - -	1,750,000
Consolidated Elevator Company	1,750,000
Ogilvie Flour Mills Company -	2,000,000
Western Terminal Elevator Co. -	2,000,000
Fort William Elevator Company	1,750,000
Northwestern Elevator Company	400,000
Thunder Bay Elevator Company	1,500,000
Davidson & Smith - - -	1,750,000
David Horn & Company - -	750,000

Four views have been advocated in Canada about the ownership and operation of the grain terminal elevators:

1. They should be operated as public warehouses by the railway companies.
2. They should be operated by the Dominion Government.
3. They should be operated by farmers' co-operative companies.
4. They should be operated by commercial companies dealing in grain.

Until the year 1904 all the lake terminals were owned and operated by the Canadian Pacific Railway Company. In 1904 the commercially-owned elevators made their appearance with the Empire Elevator and Ogilvie's Elevator. In 1913 the Canadian Government Elevator was built and in the preceding year the Grain Growers' Grain Company leased

elevators "B" and "E" from the Canadian Pacific Railway Company, thus introducing the farmers' co-operative elevators.

In the terminal markets of the United States, most of the elevators are owned and operated by men or companies engaged in the grain business, though there are some owned and operated by railway companies, but in none of the terminal markets of the United States do we find elevators operated by the United States Government, or elevators operated by farmers' companies. It is only in the Canadian system of lake terminals that we find the combination of all four methods, and this combination of all four methods renders the Canadian lake terminal system of grain elevators unique. In none of the terminal grain markets of the world do we find anything like it. Further, the competition between these four is a strong protection of the interests both of the producers and the consumers of grain, and considering, in addition to this, that all these elevators are subject, in every operation they perform, to the regulation of the Board of Grain Commissioners for Canada, it is difficult to conceive of any system of terminal elevator operation that would be an improvement upon it.

Consider, for example, the position of a farmer in the three western provinces in relation to terminal elevators. He has at his disposal as alternatives the Dominion

Government Elevator, a railway elevator, the farmers' co-operative elevators and the commercially operated elevators, and he can ship directly over the loading platform to whichever type of elevator he considers gives him the best service. In no other grain growing country in the world have farmers such a choice.

2.—RAILWAY OPERATION OF TERMINAL ELEVATORS

The Canadian Pacific Railway Company built the first elevator at the Head of the Lakes in the year 1883. This elevator is located at Port Arthur, and is still in operation. In 1884-1885 it built Elevator "A"; in 1885-1886, Elevator "B"; in 1889, Elevator "C"; in 1897, Elevator "D"; and in 1902, Elevator "E." The operation of lake terminals by the railway company has been tested by experience, and it is noteworthy that the Canadian Pacific Railway Company considers it advisable to lease all its houses except "D."

The Canadian Pacific Railway Company, as the pioneer railway company of Western Canada, took a leading part in the development of the grain business. It not only opened up the prairie provinces for settlement and encouraged agriculture generally, but its managers soon realized that if the production of grain in the west was to succeed as it

should, the methods of handling grain that had been developed in the United States must be introduced in Canada. The combination of the old flat warehouse and the small country dealer, without elevators and without an organized grain market, was not likely to conduce to the development of the country. The managers of the railway company, therefore, encouraged the building of country elevators, and thus introduced the elevator system of handling grain that had been developed in the United States.

The Canadian Northern Railway Company built an elevator at Port Arthur in 1902, and the Grand Trunk Pacific Railway Company built its elevator at Fort William in 1910. The managers of these two railway companies held views similar to those acted upon by the Canadian Pacific Railway Company. They, too, realized that the development of the territories served by their lines required the introduction of the most economical methods of handling grain. They encouraged the building of country elevators over their systems, and in order to do this to the degree that was required, they leased the terminal elevators which they had built at the head of the Lakes, to firms, whom in turn they obligated to erect lines of country elevators. These two railway companies did not, themselves, operate their terminal elevators. They realized that a greater degree of success could

be secured if they followed the line of evolution marked out in commercial business generally, and in the grain business of the United States in particular.

3.—GOVERNMENT OPERATION OF TERMINAL ELEVATORS

A few years ago there was a certain demand on the part of producers of grain in the west for Government operation of terminal elevators, just as there was at the same time a demand on the part of the producers for the operation of country elevators by the provincial governments. There is no such demand in Western Canada today. The Province of Manitoba acquired a line of country elevators and operated them for a time, but for a time only. The experiment was a failure, and the Province of Manitoba leased its elevators to the Grain Growers' Grain Company.

The Provinces of Saskatchewan and Alberta declined to embark upon the policy of public ownership of country elevators. In these two provinces there appeared, instead, the co-operative operation of elevators, and the farmers' co-operative companies have been very successful both in operating country elevators in those provinces and in selling grain on commission. Their success in those lines gives them the right to believe that they

can succeed equally well in operating terminal elevators.

So far as the producers of grain in the three Western Provinces are concerned, it is undeniable that they have accepted the principle of co-operation and rejected that of Government operation, so that there is no demand anywhere for the operation of elevators by the Government.

There is no objection on the part of the producers to the Dominion Government operating an elevator at Port Arthur or operating the interior elevators at Moose Jaw, Saskatoon and Calgary. There is, however, nothing in the operation of all these Government elevators that has convinced the farmers that Government operation offers better service than operation by anybody else. The receipts of grain from farmers by the Dominion Government elevator at Port Arthur do not warrant the view that the western farmer regards Government operation as superior in quality to the operation of commercial companies, and the leasing and erecting of terminal elevators by the farmers' companies, after the Dominion Government had built its elevator, shows the preference on the part of the producers of grain for the co-operative method.

4.—THE FARMERS' CO-OPERATIVE ELEVATORS

The co-operative method of handling grain at country points, in the markets at Winnipeg and elsewhere, and at terminal points, is now strongly rooted in Canada, and its growth and permanence are assured. The farmers' co-operative companies have followed the line of commercial evolution. They own and operate large lines of country elevators; they buy grain on track in the country; they buy grain in their elevators; they sell grain on commission; they operate public terminal elevators; they operate private elevators, and one of them has also entered the export business. They have applied the method of co-operation to almost every step in the handling of grain from the producer to the miller or exporter. They have been successful and they have made large profits, and they have made these profits and achieved this success because they followed the methods established by commercial experience.

Apart from its pecuniary earnings, the co-operative method is of the utmost value in the social development of the prairie provinces. It has given producers an experience of and an insight into commercial matters which is of the greatest value. It has enabled them to protect themselves so far as the grain business is concerned, and has rendered them much

less dependent on the protection of Governments. They do not object to the operation of elevators at the head of the Lakes either by the Government, by the railway companies, or by commercial companies. They do not desire a monopoly of any one method, even of their own. They are keenly alive to the advantages accruing to the public in general from the competition of all four systems now secured in the lake terminal system.

5.—COMMERCIALLY OPERATED TERMINALS

The commercial companies entered the field of the terminal handling of grain in 1904 when the Empire and the Ogilvie Elevators were built at Fort William. From that time on the terminal handling of grain by commercial companies grew in volume. As pointed out above, two of the railway companies declined to operate any grain elevators, and the third leased all its elevators except one. It is not too much to say that the terminal business, as it is now at the head of the Lakes, was developed by commercial companies, and that the elevators organized by these companies have been more successful and have made more money than the railway-operated or Government-operated elevators competing with them, and it becomes necessary to ascertain the reasons for this fact. The commercially operated houses handle proportionately

much larger quantities of grain than their competitors. How they secure this larger volume is not very difficult to answer, and it brings before us the chief feature of the development of grain organization in Canada in recent years. It is easy to establish the fact that they secured the larger quantity of grain because they were organized by companies that were operating in grain in spheres other than that of terminal operation.

6.—DEVELOPMENT OF GRAIN ORGANIZATION

Between the production and consumption of grain there are many services to be performed, and in the earlier stages of the grain industry each of these services was performed by a different class of trader. There were men or firms who built and operated country elevators; there were others who bought grain on track at country points; there were commission firms and various orders of brokers and dealers in the grain market; there were companies that built and operated terminal elevators; and there were dealers who bought from millers, and exporters who shipped the grain to other countries. All of these were more or less distinct and independent.

Following the trend of modern commercial development in general, and the grain industry in the United States in particular, there very soon appeared a different method, that is to

say, the method of one firm or company performing as many of these services as possible.

An early example of this, in the history of the grain industry of Canada, is supplied by the Ogilvie Flour Mills Company. This company built and operated country elevators; it bought grain in its elevators and it also bought grain on track; it received grain on commission at its office in Winnipeg; it built a terminal elevator at Fort William, and it combined all these with its milling industry, which was its chief industry.

This is only one illustration of a tendency world-wide in modern commerce.

So far as grain is concerned, we find men organizing lines of country elevators and buying grain in them; we find the same men operating as track buyers in the country; we find the same men organizing commission houses in Winnipeg for the sale of grain on consignment; we find the same men organizing and operating terminal elevator companies, and in some cases we find the same men entering the export field and shipping grain across the seas.

There are still several hundred country elevators owned and operated by individuals or small companies, and there are still throughout the west independent buyers handling grain in small volume, but in the main the grain business of Canada is now done along

the other line, that is to say, by firms or companies which aim at the performing of every service necessary between the taking of the grain from the producer and the handing of it to the exporter or consumer, except that of transportation.

This is also true of the farmers' grain companies. Both the United Grain Growers' Company and the Saskatchewan Co-operative Elevator Company illustrate this trend of modern industrial organization. Both of these companies own and operate large lines of country elevators; both of them buy grain in the elevators and on track direct from the farmers; both operate commission houses in Winnipeg; both operate public terminal elevators; both operate private terminal elevators, and the United Grain Growers' Company also operates an exporting house.

There is a popular prejudice against big business, and occasionally one hears objections to the interlocking of directorates or to the close relationship between different companies engaged in the same line of business. In spite of this, the line of evolution in the sphere of commerce is clear and unmistakable; it is demonstrable that a multiplicity of small and independent firms in any one line means great economic waste; it means a waste of men, a waste of plant, a larger cost of operation, and higher charges both on the producing and the consuming public.

The grain business is no exception to this general rule. It is a business which requires large amounts of capital, expensive plants, large staffs and the ablest possible management, and it is a business in which competition is keen and deadly.

It was inevitable, therefore, that the method tested in so many other lines of business and found successful there should be applied to the case of grain. The companies operating commercial terminal elevators at the Head of the Lakes are owned and managed by men who aim at the performance of services other than that of terminal handling of grain—men who have organized line elevator companies, track-buying and commission houses, and in some instances, exporting companies as well.

The chief difference between commercially operated terminal elevators and the elevators operated by the Canadian Pacific Railway Company and the Dominion Government is to be found in the quantity of grain handled by them, and the one great reason why more grain is shipped through the commercially-operated terminals than through either the railway house or the Government house is to be found in the fact that the companies operating the commercial houses have lines of elevators in the country through which they can purchase grain and ship it to their own terminals.

7.—TERMINAL WAREHOUSING AS A SPECIAL GRAIN INDUSTRY

The handling of grain through terminal elevators is very different from the handling of freight through railway warehouses. The grain is subject to Government inspection and weighing, in and out. The receipts issued for it are subject to Government registration, and while in the elevators the grain is subject to very many processes. It must be cleaned under the supervision of the Inspection Department, and some of the separations require very specialized machinery. If it contains an undue percentage of moisture, it must be dried, and if it gets out of condition, it must be treated therefor.

While terminal warehousing is a grain industry in itself, it is closely inter-related with the buying of grain at country points, and with the financing of grain.

The grain is all harvested within a month, but its consumption spreads over a period of twelve months. The majority of producers in Western Canada sell as soon as possible after harvest. From the date of sale by the producer to the date on which it is received by the miller or exporter, the grain must be stored, insured, moved and, above all, financed.

The grain dealing companies buy the grain through their country elevators, and they keep moving it to the terminal elevators in

which they are financially interested or which they have built. They divide their holdings between their lines of country elevators and their terminal elevators, and they move quantities from the one to the other as transportation facilities offer. They finance the grain both in their country elevators and their terminal elevators, and operating in both, they can finance in both, store in both, and move from the one to the other on the most economical terms.

It would be possible to sever the terminal warehousing of grain from the handling and financing of grain generally, but it would not be economical.

In addition to that, such severance would cause a dislocation in the grain industry.

For example, if the Government took over the terminal elevators, it would take one link in a chain leaving the others loose. It would perform one service without taking any cognizance of how the other closely related services would thereby be affected.

It is more than probable that such severance would necessitate an increase in the rates in country elevators, and under free trade it is beyond doubt that such severance would tend to cause diversion of grain into the United States. At present, owners of country elevators and buyers of grain who are financially interested in terminals at the Head of the Lakes are thereby financially interested in

shipping grain to Fort William and Port Arthur. Deprive them of that financial interest in the Fort William elevators, and they would undoubtedly ship through whatever route was then most profitable to them.

Further, there are two special conditions which would render the future of such separate and independent public warehouses at the head of the Lakes precarious—the first is, free trade in grain between Canada and the United States, and the second is, the development of private houses.

8.—FREE WHEAT

Hitherto the duty on Canadian wheat going into the United States has forced practically all the grain grown in the Western Provinces to be handled through the terminal elevators at Fort William and Port Arthur. There was a little wheat shipped all-rail from Winnipeg or other interior points during the period of closed navigation, but this was small in volume. Producers of the West have looked for other outlets, and in recent years the other outlets named were the Hudson's Bay Railway, the Panama Canal and, above all, free trade in grain with the United States.

The Hudson's Bay Railway will be constructed and a certain amount of wheat will be shipped that way. The Panama Canal is now open. The Dominion Government has

built an elevator at Vancouver, and after the war when tonnage on the Pacific becomes available, grain will be shipped through the Panama Canal. The Government elevators at Saskatoon, Moose Jaw and Winnipeg, along with private elevators in Winnipeg, will do an increasing amount of shipping all-rail during the winter months. Even, therefore, if the duty on wheat remained, the lake terminal elevators would not have it all their own way in the future as they have had in the past. But the duty has been removed, and probably will not be reinstated, and it is a certainty that large quantities of grain will be shipped from the prairie provinces into the United States without being sent to the Head of the Lakes.

If the terminal elevators at Fort William and Port Arthur were cut off altogether from commercial connection with country elevators and the buying of wheat; if they were, for example, operated by the railways, or by the Government, as public warehouses only, and cut off from the grain business in general, no grain man or company would have any special interest—no owner of country elevators, no company buying grain in the country, would have any special interest in shipping the grain via Fort William and Port Arthur. Investment in terminal elevators under such conditions would be anything but attractive.

9.—THE PRIVATE ELEVATORS

In the United States the private elevator has become the successful competitor with the public warehouse. Private elevators have made their appearance at the lake front in Canada; they have established themselves, and within the last ten years they have developed rapidly. Private elevators in Canada are not subject to the complete system of supervision by the Government through the Board of Grain Commissioners that is enforced in the public elevators. While the grain is inspected in and out, and weighed in and out, the private elevators are left free to operate as they please. They do not issue warehouse receipts, they are not subject to registration of warehouse receipts so far as grade is concerned, and there is no annual weigh-up. They can mix and blend at will; they can do as they please with overages and with screenings. The only condition which they must fulfil is that they buy all the grain they handle.

The public houses have been criticized because of their earnings from overages and from screenings. It is rather curious that no similar criticism has been directed against the private houses, though their facilities for securing earnings from both overages and screenings are proportionately greater than those of the public houses.

Upon the return of normal commercial conditions after the war, and more particu-

larly if there is free trade in grain with the United States, sample trading will be developed in Canadian grain markets, and especially at Winnipeg and Fort William. Under these conditions, especially in view of the restrictions on public elevators, private elevators will grow in number and in importance. Firms operating houses now as public houses will convert them into private houses, and the public elevators will be in a position very similar to that which obtains in the United States. More and more the warehousing of grain at the Head of the Lakes will be done by the private houses, and the owners of public houses, who cannot convert them into private houses, will find their plants unremunerative.

10.—SAMPLE MARKETS

For many years the grain business in Canada has been done on the basis of Government certificates of grade and weight. The mixing or blending of grain was in the main, and until recently, illegal, and sample trading was rendered impossible.

Sample trading, however, is now legal, and mixing or blending in private houses is legal. Sample markets are legal at Winnipeg and Fort William, and sample trading will become operative in these two markets as soon as the fixing of prices ceases and normal trading is restored.

Sample trading is impossible without mixing or blending, and sample trading under free wheat will be needed to put the grain business in Canada on a par with the grain business of the United States.

Suppose the Government takes over the public elevators, and leaves the private elevators to private enterprise. The result will inevitably be, as shown by experience south of the line, that the private elevators will secure most of the business, while the Government owned public houses will do little or nothing.

If to protect itself from this result the Government takes over the private elevators also, it will seriously handicap sample trading. It is sheer nonsense to suppose that successful blending of grain can be performed by elevator operators appointed by the Government, who are not the owners of the grain and who are not responsible to the owners of the grain. Some mixing could be done by that method, but it would be crude. The men who buy and sell the grain are the only men who can arrange for the blending of it. Government operation of all the elevators would kill sample trading, and Government operation of the public elevators only, would result in the Government having a white elephant on its hands.

11.—VOLUME OF GRAIN HANDLED

The earnings of a terminal elevator depend upon the volume or quantity of grain handled. The larger the quantity of grain, the larger the total earnings of the elevator both from the elevation charges, that is to say, the unloading and loading, from the storage charges and the charges for special services such as cleaning, separating different kinds of grain, drying, etc. Further, the larger the quantity of grain handled, the larger the quantity of screenings resultant therefrom, and also the larger in total amount will be the overage, even though this may be smaller in percentage.

The results of the operation of the Government Interior elevators at Moose Jaw, Saskatoon and Calgary, show how difficult it is for elevators that handle only small quantities of grain to earn even the costs of operation. The difference between the total earnings of those Government Interior elevators and the largest earnings of the lake port elevators is due to the difference in the quantity of grain handled. And the difference between the earnings of, for example, the Government elevator at Port Arthur and of even smaller terminal houses such as the Consolidated or Western, is due to the same cause. The commercially owned lake terminals are operated by men who are engaged throughout the whole field of the grain business of the West

—men who buy wheat in country elevators and on track, and who, therefore, can send grain to their own terminals. The Government elevator has no such feeding system. It relies entirely upon voluntary shipments from farmers or dealers, whereas the commercially-owned plants receive grain not only from farmers and shippers, but also, and in far greater volume, from the commercial companies that own or operate them. And the same is true of the farmers' terminal elevators. The larger earnings of these houses are due to the cause named, and to no other cause. Neither the Canadian Pacific Railway Company nor the Government elevator operates on any different system from the commercial houses. They charge the same fees for the same services as do the commercial houses, whether the services be elevation, storage, cleaning, separating or drying, or anything else. They also handle screenings in the same way, and they, too, secure considerable overages. All these houses are subject to the Government inspection and weighing of grain in and out. All are subject to the registration of warehouse receipts, to the annual weigh-up by the Board of Grain Commissioners, and to the comprehensive and thorough system of supervision. The differences in their earnings, it cannot be too often repeated, are due to the differences in the volume of grain handled, and the differences in the volume of grain

handled are due to the organization of commercial companies in other lines of the grain business besides that of the terminal handling.

12.—THE TARIFF

The tariff of charges made by the terminal elevators is published for the convenience of shippers of grain and of holders of warehouse receipts, and this convenience is a valuable one. Anyone making use of the terminal elevator facilities in any way can know beforehand and in detail what has to be paid for the services.

The charge is a uniform one for all the public elevators. The same kind of service carries the same fee in all the public terminals at the lake front. This is, again, for the convenience of those who use the elevators, and it is also important because there are times when the railway companies, to avoid congestion, exercise the right to unload cars at any public elevator, no matter to which elevator the car may have been billed.

The tariff is annually revised. It is filed by the elevator operators with the Board of Grain Commissioners for Canada in September each year, and the Board holds public sessions at which it hears applications for changes, whether in the way of increases or reductions.

The Board has ample means of securing relevant and adequate information. It can

examine the books of the terminal elevators, and, in addition, the Board operates terminal elevators of its own at Port Arthur, Moose Jaw, Saskatoon, Calgary and Vancouver.

The Board makes the same charges in the Government elevator at Port Arthur as do the other elevators, and the farmers' elevator companies operate under the same tariff. Under such conditions it is difficult to believe that the tariff is not a just and reasonable one.

If the charges made by the Canadian terminal elevators are compared with those levied for similar services at Duluth, Minneapolis and Chicago, they would be seen to be moderate. Taken as a whole, the charges are less in the Canadian elevators than the corresponding houses in the United States.

13.—NO GRADE GRAIN

"No grade" grain is grain that contains an undue percentage of moisture, and it is called tough, damp or wet according to the quantity of the excess moisture contained. It is the source of very much trouble in the grain industry.

The trouble begins with the inspection of it. Judging by the senses of touch, sight and smell, inspectors pronounce whether the grain is "no grade" or not. If it is "no grade," it is non-warehousable in terms of the Canada Grain Act, and it is received into the public

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terminals under special tariff arrangement. The senses of the most expert inspectors are not equal to stating in arithmetical terms the quantity of moisture in the grain, and it is impracticable to test every car of grain mechanically. The result is that there is considerable variation in the inspection of "no grade" grain as ascertained by the use of the moisture tester in the inspection offices.

"No grade" grain also causes trouble at the terminal elevators. In the winter and spring months, grain that is graded "tough," that is to say, grain containing only a small percentage of excess moisture, may be stored and shipped with safety without being dried, but in the summer months tough grain may easily go out of condition by heating, either in the elevator, or in the hold of the steamer, and at any time of the year grain that is damp or wet, in which the percentage of excess moisture is much greater, can only be handled with a considerable degree of risk unless it is dried.

The drying of grain again causes trouble. By moisture testing it may be possible for the inspectors to state how much moisture should be taken out of the grain, and by testing the grain after it has been dried, inspectors can judge how much has actually been taken out by the drying process, but in fact, the inspection and drying of grain in Canada, in the years that are gone, have been somewhat crude,

and it is possible changes could be made that would be in the interest of everybody.

It is sometimes said that the terminal elevators have made large sums of money by the drying of grain. It is a fact, however, that the terminal elevators were not all equipped with drying plants, which would be rather a remarkable thing if the operation of drying plants were specially profitable. Indeed, the facilities for drying grain in emergency years were so inadequate that the Board of Grain Commissioners requested certain terminal elevator companies to instal driers. Further, it is a fact that the drying plants have not always been needed. The use of them depends entirely upon the quantity of moisture in the grain. In some years they have not been needed to any appreciable extent, and on the other hand, there have been years, and will be again, when the drying plants were taxed to full capacity.

If the driers were operated steadily and up to the full capacity, the existing tariff for drying would enable them to earn considerable sums of money. But this is not the case. Some years the driers are idle almost altogether, or for the greater part of the year; other years they are very busy for a short time, and it is a question whether the drying plants at the Head of the Lakes have paid their way in the whole series of years. However this may be, there is everything to be said in favor of

investigations by the Government into moisture content, and the inspection and handling of "no grade" grain; and the terminal elevator operators will welcome the closest possible supervision by the Inspection Department of the drying and the handling of such grain.

14.—SCREENINGS

(a) *Special Investigations.* The subject of screenings has been investigated several times by Royal Commissions and Departmental Officers, and it may be well to begin this section by reference to the results of these investigations.

The Royal Grain Commission of 1906. The Royal Commission of 1906 appointed by the Federal Government reached the following conclusion regarding screenings:

"Any legislation with regard to the handling or disposition of screenings should be in the direction of discouraging the growth of weeds upon the farm, and, therefore, we do not feel inclined to suggest anything in the line of requests made of us in the country to have the elevators at Fort William and Port Arthur return to the shippers of grain value for noxious weed screenings taken from their grain in the ordinary course of cleaning, but we have deemed it wise to recommend compensating the shipper for domestic grain screenings."

The Saskatchewan Elevator Commission, 1910. The Government of Saskatchewan appointed a Royal Commission in 1910 in connection with grain and elevator matters in the Province of Saskatchewan. This Commission consisted of three members, two of whom were farmers and also outstanding leaders of farmers' organizations, the chairman being the present chairman of the Board of Grain Supervisors.

The conclusion reached by this body on the matter of screenings is as follows:

"Next to weights, farmers justly attach great importance to the matter of cleaning and dockage. They complain that the dockage taken is excessive, that they have to pay freight upon screenings to the terminals, that they receive back neither the screenings nor a return for them, and that in the terminals the grain is not properly cleaned, with the result of lowering the export price of grain.

"Some initial elevators have no cleaning machinery, and while most of them have, few of them have machinery adequate to clean the grain to grade as quickly as it is delivered to them. And some representatives of elevator companies maintain that it is more economical to clean the grain in large quantities at the terminals, and that the equipment of every initial elevator with machinery adequate to clean the grain to grade would be a serious tax upon the grain. On the

other hand, some of the most successful farmers solve the matter for themselves by cleaning their own grain. They can do this easily by having a cleaner attached to the thresher machine. Some of these farmers assured the Commission that the grain is better cleaned in this way than in the initial elevators, and that by this method they can secure their own screenings, destroy foul seeds, save in freight and avoid dockage, except for wild oats. It appears that these cleaners are not expensive and that they require about one-half of one horse-power. The reasons for the limited use of them appear to be two. One is that many farmers do not know anything about them, and the other is, that some who do know about them refuse to pay the owner of the thresher for anything but the clean grain, and naturally the owner of the thresher feels that he should be paid for the total weight.

“Apart altogether from the question of ownership of initial elevators, the Commission believe that it would be sound agricultural policy for the Legislature to promote as far as possible the practice of cleaning the grain before it leaves the farm. It was stated by some that in order to use such a cleaner the farmers would have to provide sacks for small weed seeds and other sacks for the other screenings, as the cleaners separate these. It was also stated that if the grain were threshed

on a windy day, some of the weed seed might get blown about.

"If such considerations are sufficient to prevent a farmer taking the easiest way of protecting himself against excessive dockage, freight on, and also screenings, the case is hopeless. What such a farmer needs is someone to farm the grain, store the grain and sell the grain for him and give him the proceeds. The Commission would strongly urge upon the Government the desirability of promoting as far as possible the policy of having the grain weighed and cleaned by the farmers themselves."

The Dominion Department of Agriculture published a bulletin on grain screenings in 1915. This bulletin is written by officers of the Department of Agriculture and is valuable more particularly because it approaches the subject from the standpoint of the feeding value of screenings.

From the summary of conclusions, we take the following:

"Feeding stuffs manufactured from screenings not properly recleaned sometimes contain thousands of noxious weed seeds per pound. Such material should never be fed as it is liable to introduce weeds that will entail the loss of thousands of dollars.

"Feeding experiments have proven that the black seeds are useless as feed and expensive as adulterants. Their admixture in any

considerable quantity of other feed makes it unpalatable for all kinds of stock. The addition of molasses to ground screenings containing the black seeds makes the feed palatable but not economical. The most economical way of making screenings palatable is to remove the black seeds.

"Screenings without the black seeds may be fed freely to horses, cattle, sheep or swine, but it is more profitable to have such screenings compose not more than 50 per cent. to 60 per cent. of the total grain ration. Buckwheat screenings are especially valuable as poultry feed.

"The manufacturers of threshing machinery are unanimous in stating that their machines are or may be fitted with screens and operated to separate a large part of the screenings at the time of threshing.

"More attention to the cleaning of grain as it is threshed will save the cost of transporting the screenings to the terminal elevators and will leave the grower in possession of much valuable feed, which if he does not need for his own use will find ready sale among live-stock men.

"The growth of weeds entails an enormous loss each year to farmers, and while it is desirable to utilize everything in grain screenings of good feeding value, it would be better to burn them than to permit their use in ways

that would bring about any increase in the number or distribution of noxious weeds."

The Royal Grain Commission of 1906 considered that terminal elevators should not compensate the farmers for noxious weed screenings, because if they did compensate them, the growth of weeds on the farm would not be discouraged. Virgin prairie grows clean grain. It is regrettable that there is a steady increase in the growth of weeds in the Prairie Provinces and in the percentage of dirt that has to be cleaned out of the grain, and the view of the Royal Grain Commission of 1906 is worth consideration.

The Saskatchewan Elevator Commission of 1910—a farmers' commission—emphasizes the fact that in the matter of dockage and screenings the farmer is not the helpless victim of rapacious terminal elevators. The farmer can retain most of the screenings in his own hands by the use of cleaners in threshing machines, and he can do this with very little additional expense and trouble. He can protect himself in the matter of dockage and screenings against both country and terminal elevators. He can retain the screenings that are good for feeding purposes and he can save the freight which he would otherwise pay to the railway companies.

This view is also taken by the Dominion Department of Agriculture in the bulletin of 1915, and it is a view which should never be

forgotten in discussing the question of screenings. Farmers have the solution of the screening's problem in their own hands.

The Department of Agriculture in its bulletin also established the fact that the screenings called "black seeds," and amounting to almost forty per cent. of the total output of screenings, are useless as feed, expensive as adulterants, and should be burnt by the farmer to prevent an increase in the growth of noxious weeds.

It may also be added in this connection that while it would not be feasible during the period of open navigation to have all the grain cleaned at the country elevators, still there are country elevators which are equipped to clean, and in addition to being able to protect themselves in the threshing, farmers have at their disposal cleaning facilities in a considerable number of country elevators. If they utilize these cleaning facilities, they can avoid paying the freight on screenings, and they can have the screenings returned to them from the country elevator. But just as the majority of farmers do not clean the grain when they are threshing it, so the majority apparently do not desire to have it cleaned at the country elevators either.

(b) *Returns for Screenings.* The Royal Grain Commission of 1906 recommended that the terminal elevators should compensate the farmer or shipper for domestic grain of com-

mercial value in the screenings. In accordance with that recommendation, legislation was enacted which provided for such compensation. This legislation appears in the Canada Grain Act, Section 126, Subsection 10, reading: "Every terminal warehouseman in the Western Inspection Division shall pay or make allowance to the owner for all domestic grain of a commercial value in screenings on all cars graded by the inspector clean to clean for domestic grain, as set forth in Section 100 of this Act, to the quantity assessed by the inspector."

And while the Royal Grain Commission limited its recommendation as to compensation to domestic grain of commercial value, the terminal elevators subsequently, and without legislation, made an allowance to farmers or shippers for non-domestic grain where the dockage was five per cent. or over, and at a later date there was embodied in the terminal elevator tariff this clause: "On wheat carrying a dockage of three per cent. or more, after deducting one per cent. of the gross weight for waste, a return will be made for the balance of the screenings. No other returns for screenings will be made."

At present, therefore, the farmer is compensated for domestic grain of a commercial value in screenings, and he is also compensated for non-domestic screenings where the

wheat carries a dockage of three per cent. or more.

In this connection it should be stated that while the Canadian Lake Terminal elevators thus compensate the farmer or shipper for screenings, there is no such compensation made by the elevators at Duluth. In the case of flax, if it happens to contain a considerable amount of screenings of marketable value, a very slight addition is made to the price offered for the flax, but so far as wheat is concerned, Duluth elevators make no such allowance to the farmer or shipper for screenings as is made by the Canadian terminal elevators.

How much money farmers and shippers receive from the terminal elevators in Canada for screenings is difficult to ascertain, but it is considerable, and it is proportional to the price received for screenings by the terminal elevators. The higher the price at which the terminal elevators sell their screenings, the greater is the compensation received by the farmer or shipper. Hence the farmer is interested in how the terminal elevator companies market the screenings. It is not in his interest that the terminal elevator companies should be compelled to sell their screenings at a lower figure in Canada than they could receive by exporting into the United States. It has sometimes been advocated that terminals should be compelled to dispose of their screenings in Canada in the interest of live-

stock production, and that in this interest they should be compelled to take a lower price for screenings than they can secure by exporting them. To this it should be sufficient to say, to begin with, that according to the bulletin of the Department of Agriculture, black seeds should not be fed to animals, that there is not in Canada at the present time a market for all the screenings, and that it would be curious legislation to say the least to compel elevator companies and farmers to take less than the market value of their product in order that feed mills would be able to buy their raw material at less than its market value.

(c) *Marketing of Screenings by the Terminals.* In the earlier years of the grain industry in Canada the elevators at the Head of the Lakes found it difficult to dispose of the screenings, and some disposed of them by using them as fuel. In those years screenings had very little market value and the percentage of screenings in the grain was much less than it is today. The farmers could make no use of screenings then at all, and the elevator companies could not find a market for them.

The rates for the handling of grain through elevators were fixed in relation to the screenings. The screenings were the payment to the elevators for the cleaning of the grain, where the cleaning was a general cleaning and

did not involve special separations. Consequently the elevating charge was fixed at a point lower than it would otherwise have been. This way of fixing the elevation charge was in the interest of the producer, and especially in the interest of the man who shipped clean grain. He secured a lower elevation charge, while the man who shipped dirty grain secured the same low charge, but paid for the cleaning of his grain by the screenings.

It is sometimes said that the elevators should be paid for the cleaning of the grain and that returns for the full value of the screenings should be made to the farmer. There is something to be said for this, but the practical difficulty in the way of this course is that it will mean an increase in the elevation charges, an increase which would have to be paid by all farmers and shippers of grain, in order that those who ship uncleaned and dirty grain may receive the full value of such dirt and screenings.

In the course of time the elevator companies found a market in the United States for the screenings, and as this market increased, and as they received more money for their screenings, they were in a position to make some returns to the farmers not only for domestic grain of a commercial value in the screenings, but also for non-domestic screenings.

It does not appear, therefore, that the farmer's interest in screenings is by any means being sacrificed. His position under existing conditions is, in a word, that if he chooses he can separate most of the screenings from the grain when threshing and retain the great bulk of the screenings in his own hands, or he can utilize, if he pleases, the cleaning facilities at country elevators and get back from them his screenings. If he does not choose either method, and if he ships uncleaned grain to the terminal point, he receives from the terminal elevators compensation for the domestic grain in the screenings in accordance with the certificate of the Inspection Department, and he also receives compensation for non-domestic screenings when the dockage is three per cent. or over. If it be asked why he does not receive compensation for that three per cent., or, in other words, for all the screenings, the answer lies in the fact that, as the terminal elevators have been operated in Canada, screenings formed the payment to the elevator for the cleaning where the cleaning was a general cleaning and did not require special separations. If the farmer is to be compensated for all the screenings, the elevator rates must be increased, and the net result will be, in substance, that every farmer and shipper of grain will pay higher rates for elevator facilities in order that farmers who ship dirty grain may be compensated for the dirt they ship.

(d) *Cleaning in Terminal Elevators.* The terminal elevators are forced to handle very large volumes of grain from the beginning of the harvest to the close of navigation. During that period they are taxed to the utmost capacity receiving grain in cars and loading it into vessels in order that full advantage may be taken of water freight rates. While receiving and shipping, they must at the same time clean whatever grain the inspector orders cleaned, and in cleaning grain during that period where the object is simply to remove the dockage as set by the inspector, the elevators aim at doing this in one process, but to do it in one process and to satisfy the inspector, they take out a larger percentage than the inspector has ordered. What they thus take out of the grain they put in bins, and as they have time and opportunity they re-clean this, and whatever grain of good grade they find in it they put back into the stock bins.

This is the practice at the lake terminal elevators, and it is a practice rendered necessary in most of the elevators by the volume of grain handled between harvest and the close of navigation.

The terminal elevator ~~companies~~ have been criticized by some for re-cleaning the screenings in this way and for ~~re-cleaning~~ putting back into their stocks grain that is of good quality. It is difficult to ~~see~~ however, by

what other method they could do the volume of business, and where the cleaning aims at the removal simply of dirt, it does not appear that the shipper is entitled to anything more than the value of what the inspector orders to be removed.

If the inspector has ordered separation of domestic grain of a commercial value, the farmer or shipper is paid for that, but apart from domestic grain of a commercial value, and considering only other screenings, it does not appear that the shipper is entitled to compensation for anything other than what is left after all the domestic grain has been removed.

It is true enough that feed mills buying screenings would prefer to get them before they are re-cleaned. It is natural that they should desire that, but if the terminal elevators were compelled to deliver screenings before being re-cleaned, they would, in order to protect themselves, be forced to adopt a different method of cleaning the grain.

It has also sometimes been said that the terminal elevators should keep the screenings of each car separate from that taken out of other cars and make a return to each individual shipper for each individual car. It is not too much to say that any attempt to do this would choke the terminal elevators. They have not bins enough to keep the screenings of each car separate from that of others.

It ought to be realized that elevators are built to handle grain, not screenings; that the interest of the country as a whole lies not in the screenings, but in good grain; and that taking the climatic and other conditions under which the Canadian grain industry has to be carried on, the operation of the terminal elevators must not sacrifice the grain to screenings. Storing the screenings is more of a nuisance to a terminal elevator than a gain.

(e) *Ownership of Grain in the Public Terminals.* It is not easy to ascertain accurately the amount of grain shipped by farmers to terminal elevators and to compare that with the amount purchased from the farmers at their country elevators or elsewhere. The point is of some importance. Take a terminal elevator like the Western Terminal Elevator. This elevator is owned by companies who own lines of country elevators, who buy wheat at their country elevators, and who ship their own wheat to their own terminals. It is within the mark to say that at least ninety per cent. of all the wheat shipped through the Western Terminal Elevator has been bought from the farmers by the companies who own the elevator, and that not more than ten per cent. of the wheat shipped to the Western Terminal Elevator is owned by farmers. In the matter, therefore of making returns for screenings, the Western Terminal Elevator

makes returns under the tariff to farmers on the screenings on, say, ten per cent. of its wheat, while it has to deal with country elevator companies for the screenings on at least ninety per cent. of its wheat. Probably similar figures are true of the other commercially operated terminal elevators. In the case of the Government elevator, the Canadian Pacific Railway Company's elevator and the farmers' co-operative elevators, the figures would naturally be different. Still taking all the public terminal elevators at the Head of the Lakes, there is no doubt that considerably more than half of all the grain going through the public terminals is not owned by farmers at all, but is owned by country elevator companies and grain dealers.

15.—OVERAGES

The subject of overages at the public terminal elevators has been under discussion and investigation for many years and the main facts have been pretty well established.

The first is as to the source of overages. Now that the allowances on cars of grain received and on "no grade" grain have been reduced or abolished, the chief, and practically the only, source of overages is that afforded by the inspection and the cleaning of the grain.

It is very difficult, if not impossible, to weigh out of an elevator the exact quantity weighed in, but if all the grain received into the elevator were cleaned by the producers, if there was no such thing as dirt, dockage and screenings, there would not be very much divergence between the quantity weighed in and the quantity weighed out. In the public elevators of the Eastern Division which receive Western grain cleaned, there is less trouble in regard to overages and shortages, but in the large public terminal elevators at the Head of the Lakes most of the wheat, and most of the flax, has to be cleaned, and quite a percentage of it has to be cleaned several times, and this being the case, it would be beyond the wit of any manager of a terminal elevator to avoid either an overage or a shortage. The inspector may set dockage from one per cent. to twenty per cent.; he may order several special separations, and as these things are ordered upon a considerable percentage of the grain, shortages or overages are the inevitable result. Overages are not peculiar to elevators owned or operated by commercial companies. They are also to be found in elevators operated by railway companies, in elevators operated by farmers' companies, and in elevators operated by the Dominion Government.

No grade grain also contributes its quota, because it is practically impossible to take any grain containing an excess percentage of

moisture and handle it, whether it be dried or whether it be shipped without being dried, and avoid an overage or a shortage.

If the overages resulting at the Head of the Lakes be considered in proportion to the total volume of grain handled by the public terminals, they will be found to be, in percentage terms, very small. Taken, however, in a lump quantity, they appear to be large, and translated into terms of money on the basis of the price of wheat during the war, they represent large earnings.

The owners of the public terminal elevators at the Head of the Lakes do not regard overages as desirable sources of revenue. They do not instruct their elevator superintendents and managers to make overages, or to operate the elevators with a view to the production of overages. They are very well aware that overages large in quantity, however small in percentage, cause suspicion on the part of the public with regard to the operation of the elevators. What the owners of the public terminal elevators desire is to avoid shortages. Their superintendents and managers in order to do this salvage as much good grain from screenings as they can and put it into the stock bins, and this is the chief cause of overages, though there may be other contributory causes. What the owners of the elevators desire, we repeat, is the avoidance of shortages, and they would welcome any plan of operation

or any plan of administration on the part of the Government that would assure them against shortage.

The inspection and the weighing of the grain both in and out of the public terminal elevators are entirely in the hands of the officers of the Government; the registration of the warehouse receipts is also in the hands of the Government, and the annual weigh-up is performed by officers of the Government. Every operation in these public terminals is supervised by the Government and it is from these supervised operations that the overages or shortages result.

The elevator companies are held responsible for shortages. They cannot afford to be responsible for shortages and at the same time to lose all the overages, but their view is that overages form the least desirable source of the revenue of public terminal elevators.

16.—STORING AND SELLING

The smallest grain tax or charge upon either the grain producer or the grain consumer is that due to the mechanical handling in the elevator, whether country elevator or terminal elevator. Farmers today know well that their problem is not the elevator toll; it is the buying and the selling of the grain. For example, if wheat were only worth 70 cents per bushel One Northern Fort William, growing wheat

in the Western Provinces would not be profitable. To offer to meet that situation by changes of ownership of elevators, whether country or terminal, would be trifling with the problem.

It is thirty-five years now since the first terminal elevator was built at the Head of the Lakes, and the Canadian system of terminal warehousing of grain as it is at present is the result of thirty-five years' evolution. Every phase of the terminal handling of grain has been tested, and it has been tested not only by commercial companies, but also by grain growers' associations, by administrative bodies and by the Parliament of Canada. The result is a system of terminal handling of grain which cannot fail to protect the interests both of producers and consumers if it is not interfered with and thrown out of gear by ill-considered legislation.

